R E P O R T  R E S U M E S

ED 014 382 RE 000 280

APPLYING STRUCTURAL LINGUISTICS IN BEGINNING READING--VITAL PRINCIPLES IN NEED OF APPLICATION.

BY- MCCULLOUGH, CONSTANCE M.
INTERNATIONAL READING ASSN., NEWARK, DEL.

PUB DATE 4 MAY 67

EDRS PRICE MF-$0.25 HC-$0.72 16P.

DESCRIPTORS- *LINGUISTICS, *BEGINNING READING, *LANGUAGE, *BASIC READING, *READING INSTRUCTION, APPLIED LINGUISTICS, LANGUAGE EXPERIENCE APPROACH, PHONICS, SYNTAX, SEMANTICS, INTERPRETIVE SKILLS,

THE APPLICATION OF STRUCTURAL LINGUISTICS TO BEGINNING READING IS DISCUSSED. LINGUISTIC KNOWLEDGE AND THE METHODS USED TO TEACH LANGUAGE MUST BE DISTINGUISHED. LANGUAGE EXPERIENCE CHARTS ARE ONE ACCOMPANIMENT TO A READING PROGRAM. THE RELATIVITY OF LANGUAGE IS AN IMPORTANT CONCEPT FOR CHILDREN TO ACQUIRE. THE ROLE OF PHONICS AND BLENDING, CONFUSION IN LANGUAGE LEARNING, DECODING SYMBOLS INTO SOUNDS AND STRUCTURES, DECODING MEANING, AND INTERPRETATION AND APPLICATION ARE DISCUSSED. THIS PAPER WAS PRESENTED AT THE INTERNATIONAL READING ASSOCIATION CONFERENCE (SEATTLE, MAY 4-6, 1967). (BK)

International Reading Association
Seattle, Washington
May 4, 1967

Constance M. McCullough
San Francisco State College
80 Vicente Road
Berkeley, California 94705

IRA

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

RE 000 280

ED014382

# APPROACHES TO BEGINNING READING

## G. APPLYING STRUCTURAL LINGUISTICS IN BEGINNING READING

## "Vital Principles in Need of Application"

The contributions of the science of linguistics to the field of reading instruction are chiefly in the areas of decoding symbols into sound and structure, and decoding sound and structure into meaning. These are two of the four major areas recognized in the reading process, two additional ones being the interpretation of meanings and their application to or integration with other ideas.

Because these contributions affect directly only two parts of the four-part process, one of the first facts we must observe is that these linguistic contributions are a part, not the whole, of our concern in teaching reading. And because they are only a part of these two parts, we should further modify our consideration of them. In other words, if we drop everything we have ever done about teaching reading and do nothing but what the science of linguistics suggests,

RE 000 280

again we sin in the direction of an extreme; and it is perhaps by extremes as much as by our mistakes that we do less well than we might in teaching children to read.

At the outset let us admit that children are reading better now than their parents did at their ages, better than their older brothers and sisters. The norms of reading tests are having to be revised because the average child in a particular grade level now is getting a higher raw score than his predecessor did a few years ago.

At the same time, we must not be overcome by vanity in this achievement. We are only one possible factor in it. Another tremendous factor is the greater stimulation of the modern environment, the greater opportunity to develop concepts, which are the sine qua non of reading comprehension.

The twenty-seven cooperative studies of different beginning reading programs showed that the quality of teaching made more difference than the method used, a finding widely viewed as proof that no one method is the best answer. But a little more thought brings still another conclusion: that perhaps each program in its individual way misses perfection by the same degree though not in the same respect; all hit the target, but none hits the bullseye. This is a sorry thought but not unexpected, since we are still pioneering in the reading field, still fitting pieces of the jigsaw puzzle together, still agreeing or disagreeing on interpretations of insufficient data.

In applying linguistic knowledge to the teaching of reading, we must distinguish between linguistic knowledge and methods used by linguists in teaching language. It is a temptation to

adopt both the knowledge and the methods; yet it must be said in all honesty that while linguistic knowledge is a product of rigorous scholarly endeavor, methods of teaching language range from ancient to modern, reflecting more of logic than of psychological soundness.

We are fortunate that some linguists have departed from their major role of information-getters, to become material-producers; but we must not forget that, while we are not in a position to view their knowledge critically, we are in a position to assess the wisdom of their teaching procedures and sequences, and perhaps to improve upon them.

We should distinguish also between methods of teaching the spoken language and methods of teaching the reading of that language. Imitation and memorization are important in the acquisition of speech patterns. The reading process involves retrieval of these acquisitions and keen observation of relationships, to recapture the author's thought and reflect upon it. Thus, while speaking and reading may share the same language, they are not identical processes. What is good for one is not necessarily good for the other.

Our objective is to teach "book English". We have to add spoken "book English" to the child's speech patterns and sounds before we can expect the child to read and understand "book English". This is not to say a little; it is to say a great deal; for every child in our society is to some extent a foreigner to "book English". Since there is some research to support the idea that the age of seven is an optimal age at which to add a language, we should probably press forward in kindergarten and

first grade, if not before, to prepare the child for this addition. And since the characteristics of the child's home language which make the learning of "book English" difficult, are different for different children, diagnosis of the differences between the home language and the "book English" sounds and patterns must take place prior to instruction and, in some respects, along with it. Otherwise, we shall continue to build a superstructure upon a foundation which cannot support it.

Language experience charts are one of the approaches to reading which can preface and accompany a reading program. If the child says, "Wannagome" for "I want to go home," some teachers faithfully reproduce this language on a chart, following the imperative that the child must feel his language is respected, and that he must see his language written exactly as it is said. If, however, another principle is added, that the child should be taught "book English" as efficiently as possible, teachers may wish to delay dictated charts until these can be useful models of reading materials.

Probably the most important of all principles to teach children is the relativity of language. Consider the relativity of sounds: the b in battle as compared with the b in cab; the o in not as compared with the o in note; the th in this as compared with the th in think. One has to inspect the whod as a whole before one knows whether the th is voiced or unvoiced, and then he knows only because he has heard these words before - if, indeed, he has. Consider the effect of context on the word bear, the possible meanings of "Now you've done it." The sounds assigned to words and letters, and the meanings of words and larger units of composition are modified by their environment. To learn them in isolation is to learn them only in part; is, in fact, to misrepresent the task of reading them.

Children need to learn both the fact that letters are assigned certain sounds according to their positions in a pattern and that some letters are assigned variable sounds within the same or different framework. The c's in circus are controlled by the vowels which follow them, to yield the s or k sound. The tear we shed and the tear in a garment have no structural reason for their difference, only a meaning reason. C.C.Fries has suggested that children should see what different words they can produce by putting different vowel sounds between consonants. The p-l patterr becomes pal,pel,pil,pol,pul; pale (pail), Peel (peal), pile, pole (poll), pule; powl,paul, poil, pull, pool. This can be a creative exercise for the child, not a ready-made teacher-patterned ritual. Variations in spelling for the same sound can become an impressive discovery.

## Phonics and Blending

Phonics, as we know it, was suitable in the last century because we did not have the linguistic knowledge to warrant a different procedure. We taught that letters said a certain sound, in spite of the fact that most of our letters are either variable in sound or unpronounceable alone.

In some languages each consonant letter is a pronounceable unit, carrying a vowel sound with it. In Hindi, for instance, the letter m is actually an m plus a schwa sound (muh) unless a separate vowel is attached to change that condition. So, in Hindi, it is perfectly proper and possible to sound consonants bearing letters separately. But in English this is not the case.

The vowels in English are produced in a flow of air. The consonants initiate or interrupt that flow and are not audible

without it. Thus the vowels a, o and i are the only letters that appear as single words in our language. When we require children to say or even whisper the consonant alone, we are misrepresenting the language to them. So we must decide to what extent we can afford to misrepresent these conditions in initial instruction, or whether it is wise at all to do so. Certainly we take a good deal of trouble to avoid misrepresentation of mathematical truths in beginning arithmetic, and science truths in beginning science. What if we should decide not to misrepresent the language in initial instruction in reading? It could be done, but not by i.t.a. as it is now taught, or some of the other systems in which we have invested funds and loyalties.

Because we have had a letter approach to sounding words, we have invented a blending problem. Children learn the sounds to associate with certain letters, according to our instruction, but have trouble putting them together into a pronounceable whole. In fact, many good and poor readers alike prefer to discover the identity of strange words by other means.

At recurring points in our history we have insisted that c-a-t should be blended as c-at, at other times, as ca-t. Thus we have produced cuh-at and ca-tuh, neither of which has ever been known to sit on a fence and howl.

Now we need to look at the facts of our language. The vowel in cat affects both the c and the t.(The word car, with its r controlled a, shows ~~this~~ relationships even more clearly.) The child who would attack this word successfully must know that the a gives the c the sound usually associated with k, and that a vowel between two consonants in the same syllable is usually short. So he derives ă from the a.

He raises the back of his tongue against the soft palate to produce the initial k position and immediately switches to the flattened tongue, short a position; then finishes by bringing the tip of his tongue to the final t position against the gums behind the upper front teeth, if he has any. If he hasn't lost all of his wind, he has produced cat; and he has done it without the addition of a schwa sound prior to the short a. Readiness activities for sounding out cat include aural and oral practice in hearing and saying ă, kă, and ăt.

Future generations of teachers may know that the blending problems of the twentieth century and earlier, were due to faulty pedagogy. But not unless we change what we are doing. Probably many defensive arguments will be raised for the old way, to maintain the comfort of the customary instead of the customer; but in the end we may have a sounder sound system.

## Attention and Confusion in Language Learning

And speaking of faulty pedagogy, we frequently have violated the principle that learning is most effective when attention is greatest. When we teach the association of a sound with a letter, the time of greatest attention should be the time at which this association is observed. But frequently we have told the child the sound, and have merely asked him to find that letter in other words and pronounce them with that sound in them. He can go through these motions with any sound we give him, but that is no assurance that he will remember which sound he made for which exercise. If we want to impress the child with the association, his pride in discovery and his attention should be invested , not just ours in telling him what we know. If, further, he keeps his own record of what he has discovered, he will not only remember it better but will have it to refer to for review. Typically, the only record is in the teacher's head.

A favorite habit of language teachers is to group together things that are much alike: letters, words, and sounds. M and n are so much alike, teach them together, they say; The same with the words take and bring, because of their common burden; and t-h-e-r-e- and t-h-e-i-r, because of their common sound. Speech therapists know better than this. They establish one learning and after that, another; and only after both are well known are they brought together, with reduced chance of confusion. In beginning reading instruction, ¿¥ø$$ƵƳ/ȡƵƵȼ¥ȼ%Ƶ words grossly different in form, sound, or meaning can more easily be learned together. And we are fortunate that the natural language of children contains many grossly different words, and varied sentence forms.

The Reading Process: the Decoding of Symbols into Sounds

Now let us turn to the reading process itself, to see what insights we can gain for a beginning reading program. Suppose the author wants to convey these simple thoughts:

The deer met the bear.

The deer had antlers.

The deer lowered his antlers.

These sentences are of the type: N V N (noun, verb, noun), have a common subject, and make pretty dull reading. The author combines these ideas into one sentence, and he does it in such a way as to give importance to the way the deer met the bear.

The deer met the bear with lowered antlers.

The phrase, with lowered antlers, is in a typical position of an adverbial expression. With luck, it will be no reflection on the bear.

The decoding of symbols into sound involves the following if none of the words are known as sight words: The child must choose

the voiced form of th in the; and, seeing the consonant beginning the next word, give the final e the schwa sound: thə. In deer he must realize that ee yields a long e sound modified by the presence of the final r - the hooked long e, as Webster calls it - the e with the second heroin shot. Met is the closed syllable, short e, situation. The ea in bear could produce beer, bare, burr, or bar. Nothing but the realization that this is the fur-barring bear , and an auditory memory of its name, can save the reader here. With has the short i of the closed syllable. Its th is voiced or unvoiced, depending on the part of the country it is voiced in. The ow in lowered could be long o or ou. If er-ed are recognized as variant endings, the low is stressed, and the er-ed become er'd, not ert or ered.

Antlers contains two syllables, having two vowels. The first The first vowel in the closed syllable is short, and the second is modified by r. The s in the final position following r has the sound associated with z. The stress is penultimate, and the child may luckily guess this, mistaking -er as a variant ending.

Of course, if the child knows some words by sight, or recognizes some parts, such as low, ant, and the s, er, and ed endings, he shortens the process of decoding. One purpose of the controlled vocabulary is to reduce the burden of decoding symbols into sounds; another is to make a few words very familiar to the point of rapid recognition; and a third is to help the memoriaation of words which are not regularly spelled.

The Reading Process: the Decoding of Symbols and Sounds into Structures (Syntax)

While the reader decodes the symbols into sounds, he is also noting the structure of the sentence and the role of each word,

phrase, or clause in it. If there were more than one sentence, he would be noticing the relationship of one sentence to another, in the presence of pronoun referents and structure words.

In the sentence we are using as an example, The is a noun determiner. Deer could be an adjective, but met, followed by another the, suggests that deer is the subject and met is the verb. Deer can be singular or plural, and met does not give a clue as it might in present tense: deer meet, deer meets. You can imagine what deer meet would do to a bad speller in this situation.

If the child knows that met is past tense, he knows that the sentence refers to a completed act. The bear must be another noun, the thing acted upon, because it follows the and is followed by a ~~function~~ structure word, with. The ed ending of lowered suggests a verb form, and after the preposition with, must be an adjective. Antlers, with its s ending, following an adjective and preposition, must be a noun, a plural.

A child who knows the English language represented by this sentence can catch the clues to order (the typical N V N pattern), the noun determiners (the - the), the suggestion of time (met)(lowered) and number (antlers). A child who does not know an English that uses articles and variant endings and expected order needs a great deal of support from the listening and speaking areas of the curriculum before he is ready to read a sentence like this. Even with a good English background, a child could not tell whether deer was singular or plural. He would have to seek a clue elsewhere in the composition.

The Reading Process: the Decoding of Meaning

Besides being able to decode the symbols into sounds, and into unpacted word groupings, the reader must decode the meaning of what he is sounding out. When the author writes THE deer, the reader

must, as Lee Deighton has said,"hold in abeyance" his decision about the number of deer until he gets a further clue. Met looks simple but may refer to action or stance. Does it mean that the deer faced the bear, approached him, reacted to the sight of him, touched him or rammed him? The bear is the one that got the action, from one or more deer, some time in the past.

If the reader does not know what a deer is, what a bear is, what their attitude toward each other is, what their weapons are, what their food is, he cannot sense the situation. It may as well be The icks met the oiks. You see the tremendous role of concepts and the wisdom of dealing as much as possible with familiar concepts in beginning reading, when the struggle with symbols is so great.

We sophisticated readers take with for granted, but with has different meanings. To fight with enemies is to fight against them. To part with them is to part from them. So with is a word to watch. The position of with after bear may suggest that it introduces something characteristic of the bear (the bear with the bad foot), or the way he is doing something (with caution), or something he has (with the honey), or a reference to time (with no delay). But here is a bear with lowered something: eyes? paws? self-consppt? No, antlers.

If the reader knows who is wearing antlers this season, he knows that the with expression refers back to the singular or plural deer at the first of the sentence. And because the sentence order was not The deer with lowered antlers met the bear, the reader suspects that with lowered antlers isn't abnormally jaunty way the deer wear antlers these days, but a special stance in honor of the bear.

Coming back to the meaning of met, let us suppose that a sentence preceding the one we have analyzed said:

The bear and deer approached each other slowly.

In this case, met suggests action. But suppose the preceding sentence said, instead:

As the deer started to raise its head from the salt-lick, it saw a bear approaching.

Now, the met is stance. The antlers are already low. Or, suppose the sentence had been:

The picture showed a bear and deer in a meadow.

Now both animals are stationary, and there is no time difference or movement.

## The Reading Process: Interpretation and Application

Surrounding sentences give added dimensions to sentence meaning, requiring some awareness of the thought patterns the author is following. The deer lowered his antlers because of the approaching bear. We have a cause and effect relationship without benefit of a clue to the reader in the form of a word like because. Or, in the description of the picture, our preceding sentence describes the situation (a picture), and the second sentence tells a detail of it. One might expect an additional sentence offering another detail.

In any case, the reader has to go beyond what he has sounded out and structured out, and what he knows of the meaning of what he has read, to interpret and apply what he has gathered. Why would a deer lower its antlers on sight of a bear? Does the reader generalize threat from stance, and see that the deer is a threat to the bear and the bear to the deer? Both are now

motivated by fear. Perhaps they just happened upon each other, and have reacted in surprise. What will happen next? Why?

A good reader anticipates beyond the sentence he is reading. Furthermore, he applies the information in some ways, and perhaps philosophizes. Would modèarneverrattack a bear? Or vice versa? Am I sometimes afraid when I need not be? Mike McClintock's A Fly Went By is a good follow-up for this matter of unwarranted fear.

## The Reading Process Versus Logic

The reading actnis not a logically sequential act of first decoding sound, then structure, then meaning, then interpretation, and then use or integration; it is rather an act of interplay among all of these. You don't sound the whole sentence before you utilize clues to structure,/some possible clues to meaning and sense relationship, formulate hunches about the total meaning, and see possible applications of this meaning to past and future ideas. Only linguistic analysis uses such logical sequence. What is good for the analyst is not necedsarily good 6r normal for the reader.

A baby is lucky that it has no teeth. Otherwise an analyst would come along with chewing exercises, forbidding the flow of saliva until chewing had been perfected; then with salivating without chewing or swallowing, and finally swallowing without chewing or salivating; all this without benefit of something worth chewing,salivating, and swallowing.

Does this sound like the program that first teaches sounds associated with letters until all are memorized, then patterns of letters within words until the child can manipulate them, then one sentence pattern at a time until all patterns are mastered, and finally something in the natural language?

Does it sound like the program which first teaches sentence reading, then whole words, and finally the letter-sound associations?

Does it sound like the program which teaches all regularly spelled words first, and only later the ones which defy phonic solution?

We have all been using one or another type of logical approach - fragmented approach - in attempting to teach something that does not behave that way. Because we have discovered components, we have ordered them unnaturally and are serving them to children in unnatural sequences. So it was that some reader series served consonants in the first grade books and vowels in the second, causing the child to wait a whole year before he could sound out a whole word, and causing parents to panic. The most useful consonant-vowel combinations could have been presented first, but this did not occur to the logicians who designed the program.

An important principal to recognize is that logical organization is something to be <u>achieved</u> by a learner, not <u>imposed</u> upon him. The linguist loves his field partly because he can make discoveries about its logical relationships and its vagaries. The child should have this same privilege of discovery.

Logically, some linguists believe that the child's initial reading material should contain only regularly spelled words. Other linguists believe that the child's natural language should be used. Unfortunately these two ideas are incompatible. But it is possible to use the child's natural language and to have a parallel program of exercises using some of the same words and emphasizing form and nonsense.

Again, logically, some of us have thought that word analysis

had to be based upon words which the child had in his sight vocabulary. This meant that sight vocabulary had to precede analysis. Others disagreed: Letter sounds should be learned first; then words. But neither really had to precede the other. All that was required was for the child to be told what two words said, so that he could hear their common sound and find by sight the letter contributing making that sound.

All of the elements in the reading process, and all of the skills and understandings and attitudes requireddin these elements, must be present in the initial reading program, unless we wish deliberately to misrepresent the reading act and establish habits which must be broken. And even though we do not value the completeness of the reading act at every level, surely we must consider the children who are disturbed if they have to learn sentences or words entirely as wholes, or children who do not have the auditory discrimination to approach reading successfully through the phonic mode.

## Final Statement

We are in a stage of transition. Perhaps we always shall be, as long as we and the langugge live. But I believe there is great hope for a better reading program, a greatly impooved one, if we try to put together in a mutually beneficial relationship some of the ideas which have divided us.

Why should a child read a whole year before he can sound out a word? Why should he have to sound out everything? Why should all of his beginning reading be nonsense? Why should it start with mimicry? Why should it be entirely his own language? Why should it rhyme as nothing in English literature rhymes, to the distress of comprehension? Why should a child learn initially in the same

lesson, words which are confusing in form? Why should consonants precede vowels or vowels consonants? Why should we blend when we can bend?

The answer is that we have all been viewing the redding process from different angles and letting logic and custom blind us to the natural conditions for effective learning.

Now we have the new linguistic evidence. We have much information on the ways in which learning takes place. We have the language of children all around us, and a wealth of children's literature. Something better than we have ever achieved is just ahead.